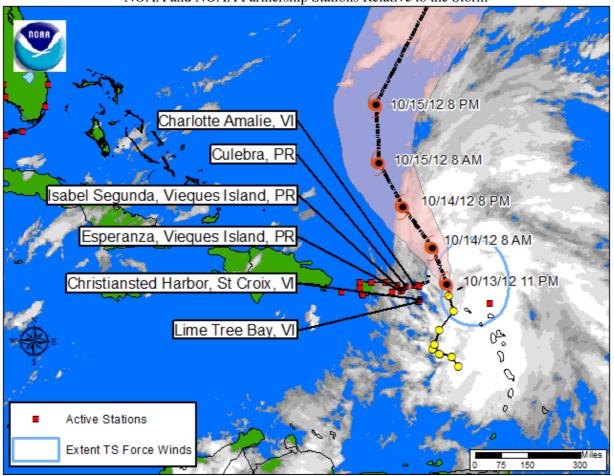


NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of 10/14/2012 00:00 AST, water levels across the U.S. Virgin Islands and eastern Puerto Rico are elevated between 0.5 to 0.85 feet above tidal predictions. Wind speeds are generally below 12 kts with slightly higher gusts. Barometric pressure continues to fall across the region.

Water Level and Meteorological plots available below are updated automatically. Water level predictions relative to <u>Mean Lower Low Water</u> are:

Christiansted Harbor, St Croix, VI: Next predicted high tides are 0.7 ft (0.20 m) at 10/14/2012 07:50 AST and 0.4 ft (0.13 m) at 10/14/2012 17:50 AST.

Esperanza, Vieques Island, PR: Next predicted high tides are 0.6 ft (0.19 m) at 10/14/2012 07:21 AST and 0.4 ft (0.14 m) at 10/14/2012 17:16 AST.

Lime Tree Bay, VI: Next predicted high tides are 0.8 ft (0.25 m) at 10/14/2012 08:31 AST and 0.9 ft (0.28 m) at 10/15/2012 09:30 AST.

Charlotte Amalie, VI: Next predicted high tides are 1.0 ft (0.30 m) at 10/14/2012 08:02 AST and 0.7 ft (0.22 m) at 10/14/2012 18:54 AST.

Culebra, PR: Next predicted high tides are 1.4 ft (0.42 m) at 10/14/2012 07:29 AST and 1.1 ft (0.33 m) at 10/14/2012 19:18 AST.

Isabel Segunda, Vieques Island, PR: Next predicted high tides are 1.4 ft (0.43 m) at 10/14/2012 07:41 AST and 1.1 ft (0.34 m) at 10/14/2012 19:31 AST.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For information on Highest Astronomical Tide (HAT), NAVD88 and other datums, please see <u>Tidal Datums</u>. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

I mary st. D W		

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

TROPICAL STORM RAFAEL ADVISORY NUMBER 6 NWS NATIONAL HURRICANE CENTER MIAMI FL AL172012 1100 PM AST SAT OCT 13 2012

...CENTER OF RAFAEL PASSES WEST OF ST. MARTIN...

WATCHES AND WARNINGS

Analyst DW

CHANGES WITH THIS ADVISORY...

NONE

SUMMARY OF WATCHES AND WARNINGS IN EFFECT...

A TROPICAL STORM WARNING IS IN EFFECT FOR...

- * CULEBRA AND VIEQUES
- * U.S. VIRGIN ISLANDS
- * BRITISH VIRGIN ISLANDS
- * ANGUILLA...BARBUDA...ST. KITTS... NEVIS...ANTIGUA...AND MONTSERRAT
- * SABA...ST. EUSTATIUS...AND ST. MAARTIN
- * ST. MARTIN
- * GUADELOUPE...DESIRADE...LES SAINTES...MARIE GALANTE

A TROPICAL STORM WATCH IS IN EFFECT FOR...

* PUERTO RICO

A TROPICAL STORM WARNING MEANS THAT TROPICAL STORM CONDITIONS ARE EXPECTED

SOMEWHERE WITHIN THE WARNING AREA...IN THIS CASE WITHIN THE NEXT 12 TO 24 HOURS.

A TROPICAL STORM WATCH MEANS THAT TROPICAL STORM CONDITIONS ARE POSSIBLE WITHIN THE WATCH AREA.

INTERESTS IN BERMUDA SHOULD MONITOR THE PROGRESS OF RAFAEL.

FOR STORM INFORMATION SPECIFIC TO YOUR AREA IN THE UNITED STATES...INCLUDING POSSIBLE INLAND WATCHES AND WARNINGS...PLEASE MONITOR PRODUCTS ISSUED BY YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE. FOR STORM INFORMATION SPECIFIC TO YOUR AREA OUTSIDE THE UNITED STATES...PLEASE MONITOR PRODUCTS ISSUED BY YOUR NATIONAL METEOROLOGICAL SERVICE.

DISCUSSION AND 48-HOUR OUTLOOK

AT 1100 PM AST...0300 UTC...THE CENTER OF TROPICAL STORM RAFAEL WAS LOCATED NEAR LATITUDE 18.4 NORTH...LONGITUDE 63.6 WEST. RAFAEL IS MOVING TOWARD THE NORTH NEAR 14 MPH. A NORTHWARD MOTION IS EXPECTED TONIGHT FOLLOWED BY A TURN TOWARD THE NORTH- NORTHWEST ON SUNDAY. ON THE FORECAST TRACK...THE CENTER OF RAFAEL SHOULD BE MOVING AWAY FROM THE VIRGIN ISLANDS AND THE NORTHERN LEEWARD ISLANDS DURING THE NEXT SEVERAL HOURS.

MAXIMUM SUSTAINED WINDS ARE NEAR 50 MPH WITH HIGHER GUSTS. SOME STRENGTHENING IS FORECAST DURING THE NEXT 48 HOURS... AND RAFAEL COULD BECOME A HURRICANE BY MONDAY.

TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 175 MILES MAINLY TO THE EAST OF THE CENTER. A NATIONAL OCEAN SERVICE STATION ON BARBUDA RECENTLY REPORTED 6-MINUTE MEAN WINDS OF 37 MPH AND A WIND GUST OF 42 MPH.

THE ESTIMATED MINIMUM CENTRAL PRESSURE IS 1004 MB...29.65 INCHES.

HAZARDS AFFECTING LAND

RAINFALL...RAFAEL IS EXPECTED TO PRODUCE TOTAL RAINFALL AMOUNTS OF 3 TO 5 INCHES...WITH ISOLATED MAXIMUM AMOUNTS OF 10 INCHES...OVER THE LESSER ANTILLES AND THE VIRGIN ISLANDS. THESE RAINS COULD CAUSE LIFE-THREATENING FLASH FLOODS AND MUDSLIDES...ESPECIALLY IN AREAS OF MOUNTAINOUS TERRAIN. 1 TO 3 INCHES OF RAIN IS EXPECTED IN CULEBRA AND VIEQUES.

WIND...TROPICAL STORM CONDITIONS WILL CONTINUE TO SPREAD ACROSS THE WARNING AREA TONIGHT. TROPICAL STORM CONDITIONS ARE POSSIBLE OVER PUERTO RICO TONIGHT AND SUNDAY.

SURF...DANGEROUS SURF CONDITIONS ARE POSSIBLE IN THE LESSER ANTILLES AND THE VIRGIN ISLANDS THROUGH SUNDAY.

STORM SURGE...A STORM SURGE OF 1 TO 2 FEET ABOVE NORMAL TIDE LEVELS IS POSSIBLE

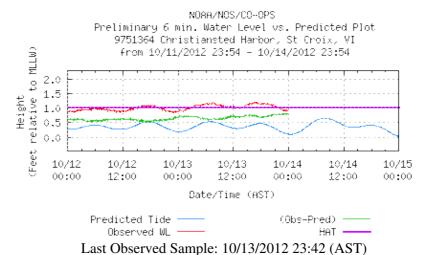
IN AREAS OF ONSHORE FLOW IN THE WARNING AREA.

FORECASTER BEVEN

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

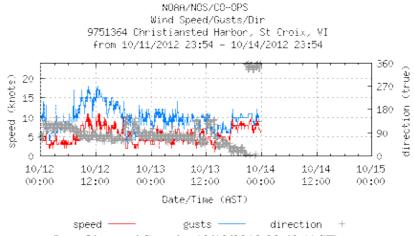
Jump to: Christiansted Harbor, St Croix - Water Level, Christiansted Harbor, St Croix - Winds, Esperanza, Vieques Island - Water Level, Esperanza, Vieques Island - Winds, Esperanza, Vieques Island - Barometric, Lime Tree Bay - Water Level, Lime Tree Bay - Winds, Lime Tree Bay - Barometric, Charlotte Amalie - Water Level, Charlotte Amalie - Winds, Charlotte Amalie - Barometric, Culebra - Water Level, Culebra - Winds, Culebra - Barometric, Isabel Segunda, Vieques Island - Winds, Winds,

Christiansted Harbor, St Croix, VI - Return to List



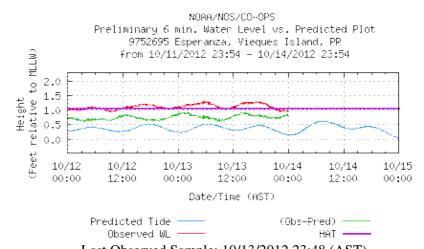
Relative to MLLW: Observed: 0.92 ft. Predicted: 0.11 ft. Residual: 0.81 ft. Historical Maximum Water Level: Oct 16 2008, 1.17 ft. above MHHW

Christiansted Harbor, St Croix, VI - Return to List



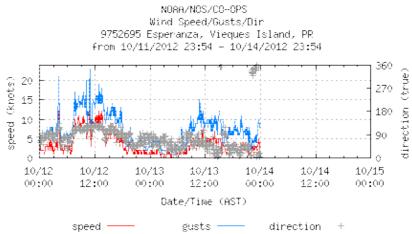
Last Observed Sample: 10/13/2012 23:42 (AST) Wind Speed: 6 knots Gusts: 9 knots Direction: 359° T

Esperanza, Vieques Island, PR - Return to List



Last Observed Sample: 10/13/2012 23:48 (AST)
Relative to MLLW: Observed: 1.01 ft. Predicted: 0.14 ft. Residual: 0.87 ft.
Historical Maximum Water Level: Aug 22 2011, 1.04 ft. above MHHW

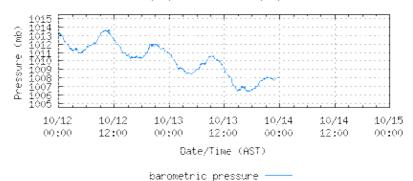
Esperanza, Viegues Island, PR - Return to List



Last Observed Sample: 10/13/2012 23:48 (AST) Wind Speed: 4 knots Gusts: 9 knots Direction: 17° T

Esperanza, Viegues Island, PR - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 9752695 Esperanza, Vieques Island, PR from 10/11/2012 23:54 - 10/14/2012 23:54



Last Observed Sample: 10/13/2012 23:48 (AST)

Barometric Pressure: 1008.0 mb

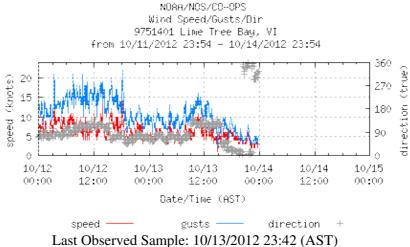
Lime Tree Bay, VI - Return to List

NOAA/NOS/CO-OPS Preliminary 6 min. Water Level vs. Predicted Plot 9751401 Lime Tree Bay, VI (Feet relative to MLLW) from 10/11/2012 23:54 - 10/14/2012 23:54 2.0 1.5 Height 1.0 0.5 0.0 10/12 10/12 10/13 10/13 10/14 10/14 10/15 00:00 12:00 12:00 00:00 12:00 00:00 00:00 Date/Time (AST)

Predicted Tide (Obs-Pred) (Obs-Pred) HAT

Last Observed Sample: 10/13/2012 23:42 (AST)
Relative to MLLW: Observed: 0.93 ft. Predicted: 0.48 ft. Residual: 0.45 ft. Historical Maximum Water Level: Nov 17 1999, 1.88 ft. above MHHW

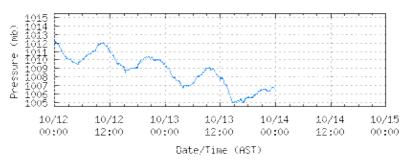
Lime Tree Bay, VI - Return to List



Last Observed Sample: 10/13/2012 23:42 (AST) Wind Speed: 3 knots Gusts: 5 knots Direction: 326° T

Lime Tree Bay, VI - Return to List

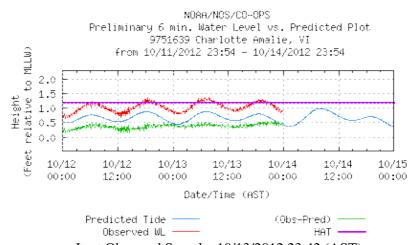
NOAA/NOS/CO-OPS Barometric Pressure Plot 9751401 Lime Tree Bay, VI from 10/11/2012 23:54 - 10/14/2012 23:54



barometric pressure ——
Last Observed Sample: 10/13/2012 23:42 (AST)

Barometric Pressure: 1006.7 mb

Charlotte Amalie, VI - Return to List



Last Observed Sample: 10/13/2012 23:42 (AST)
Relative to MLLW: Observed: 0.92 ft. Predicted: 0.43 ft. Residual: 0.49 ft. Historical Maximum Water Level: Sep 16 1995, 2.93 ft. above MHHW

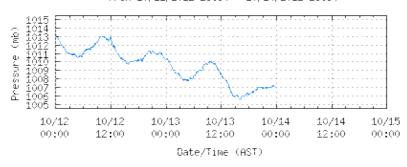
Charlotte Amalie, VI - Return to List

NOAA/NOS/CO-OPS Wind Speed/Gusts/Dir 9751639 Charlotte Amalie, VI from 10/11/2012 23:54 - 10/14/2012 23:54 360 (true) 20 speed (knots) 15 direction 180 10 90 0 10/12 10/14 10/14 10/15 10/12 10/13 10/13 00:00 12:00 00:00 12:00 00:00 12:00 00:00 Date/Time (AST) gusts direction

Last Observed Sample: 10/13/2012 23:42 (AST) Wind Speed: 2 knots Gusts: 5 knots Direction: 358° T

Charlotte Amalie, VI - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 9751639 Charlotte Amalie, VI from 10/11/2012 23:54 - 10/14/2012 23:54



barometric pressure ——

Last Observed Sample: 10/13/2012 23:42 (AST)

Barometric Pressure: 1007.1 mb

Culebra, PR - Return to List

NOAA/NOS/CO-OPS Preliminary 6 min. Water Level vs. Predicted Plot 9752235 Culebra, PR (Feet relative to MLLW) from 10/11/2012 23:54 - 10/14/2012 23:54 2.0 1.5 Height 1.0 0.5 0.0 10/12 10/12 10/13 10/13 10/14 10/14 10/15 00:00 00:00 12:00 00:00 12:00 12:00 00:00 Date/Time (AST)

Predicted Tide (Obs-Pred) (Obs-Pred) HAT

Last Observed Sample: 10/13/2012 12:30 (AST)
Relative to MLLW: Observed: 1.03 ft. Predicted: 0.52 ft. Residual: 0.51 ft. Historical Maximum Water Level: Nov 6 2006, 0.85 ft. above MHHW

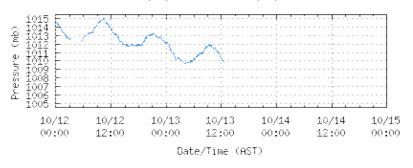
Culebra, PR - Return to List

NOAA/NOS/CO-OPS Wind Speed/Gusts/Dir 9752235 Culebra, PR from 10/11/2012 23:54 - 10/14/2012 23:54 360 speed (knots) 20 270 15 direction 180 10 90 0 10/15 10/12 10/13 10/14 10/14 10/12 10/13 00:00 12:00 00:00 12:00 00:00 12:00 00:00 Date/Time (AST) speed gusts direction

Last Observed Sample: 10/13/2012 12:30 (AST) Wind Speed: 5 knots Gusts: 8 knots Direction: 19° T

Culebra, PR - Return to List

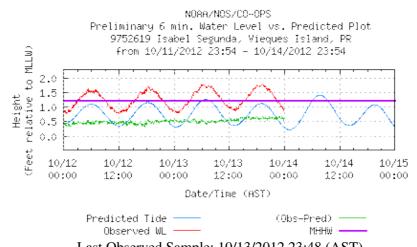
NOAA/NOS/CO-OPS Barometric Pressure Plot 9752235 Culebra, PR from 10/11/2012 23:54 - 10/14/2012 23:54



barometric pressure ——
Last Observed Sample: 10/13/2012 12:30 (AST)

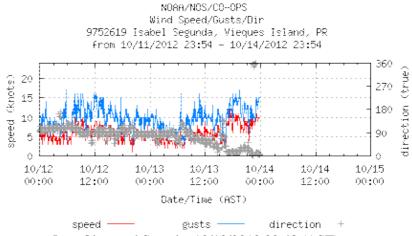
Barometric Pressure: 1009.9 mb

Isabel Segunda, Vieques Island, PR - Return to List



Last Observed Sample: 10/13/2012 23:48 (AST)
Relative to MLLW: Observed: 0.88 ft. Predicted: 0.32 ft. Residual: 0.56 ft. Historical Maximum Water Level: , 0 ft. above MHHW

Isabel Segunda, Vieques Island, PR - Return to List



Last Observed Sample: 10/13/2012 23:48 (AST) Wind Speed: 10 knots Gusts: 15 knots Direction: 5° T

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce